

AMENDMENT TO THE CLAIMS:

This listing of claims will replace all prior version, and listings, of claims in the application:

Listing of Claims:

Claims 1-5 (Canceled).

6. (Currently Amended) ~~The method according to claim 1, further comprising:~~ A method for determining a state of a vehicle battery, the method comprising:

measuring a voltage of the battery;

deriving information regarding the state of the battery from the measured battery voltage using an integration procedure, a variable weighting factor being taken into account in the integration procedure, wherein the weighting factor is a function of the measured battery voltage;

predefining an upper voltage threshold value and a lower voltage threshold value; and

determining the weighting factor according to the following correlation:

if a measured battery voltage value lies between the upper and lower voltage threshold values, the weighting factor has the value 0, and

if a measured battery voltage value is one of less than the lower voltage threshold value and greater than the upper voltage threshold value, the weighting factor has the value 1.

7. (Original) The method according to claim 6, further comprising forming a difference within the framework of the integration procedure in which half of a sum of the upper and lower voltage threshold values is subtracted from the measured battery voltage.

8. (Previously Presented) The method according to claim 7, wherein the following correlation is used to ascertain the information regarding the state of the vehicle battery:

$$L(t) = \int_{t_0}^t D(\tau) \cdot a[U(\tau)] d\tau$$

where it applies:

$$D(\tau) = U(\tau) - \frac{U1 + U2}{2}$$

and $L(t)$ being the voltage integral; $D(\tau)$ a differential function; $a[U(\tau)]$ the weighting factor, where a is a function of $U(\tau)$, a measured battery voltage value; $U1$ the upper voltage threshold value; and $U2$ the lower voltage threshold value.

Claims 9-11 (Canceled).

12. (Currently Amended) ~~The device according to claim 9,~~ A device for determining a state of a vehicle battery, comprising:

a battery voltmeter; and

an evaluation unit coupled to the battery voltmeter for deriving information regarding the state of the vehicle battery as a function of a measured battery voltage using an integration procedure, the evaluation unit taking into account a variable weighting factor in the integration procedure, wherein the weighting factor is a function of the measured battery voltage;

wherein the evaluation unit calculates the weighting factor according to the following correlation:

$$a(U) = \begin{cases} 0 & \text{for } U2 \leq U \leq U1 \\ 1 & \text{for } U2 > U \text{ or } U1 < U, \end{cases}$$

$U1$ being a predefined upper voltage threshold value, $U2$ a predefined lower voltage threshold value, and U being measured battery voltage.

13. (Currently Amended) The device according to claim ~~[[9]]~~ 12, wherein the evaluation unit implements the following differential formation:

$$D(\tau) = U(\tau) - \frac{U1 + U2}{2}$$

$U1$ being a predefined upper voltage threshold value, $U2$ being a predefined lower voltage threshold value, and $U(\tau)$ being a measured battery voltage value.

14. (Previously Presented) The device according to claim 13, wherein the evaluation unit implements the following integration procedure:

$$L(t) = \int_{t_0}^t D(\tau) \cdot a[U(\tau)] d\tau$$

$L(t)$ being a voltage integral and $a[U(\tau)]$ being the weighting factor.